

# PCT



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference NO 7403/WO/PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/09999	International filing date (day/month/year) 09.09.2003	Priority date (day/month/year) 10.09.2002
International Patent Classification (IPC) or both national classification and IPC A23L1/308		
Applicant NESTEC S.A. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.  
  
☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☒ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

Date of submission of the demand  19.01.2004	Date of completion of this report  27.01.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Popa, M  Telephone No. +49 89 2399-7829  

**INTERNATIONAL PRELIMINARY  
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**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-18 as originally filed

**Claims, Numbers**

1-8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

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## IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-5 .

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4,5
	No: Claims	1-3
Inventive step (IS)	Yes: Claims	
	No: Claims	4,5
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

- D1: US-B1-6 248 390 (STILLMAN SUZANNE JAFFE) 19 June 2001
- D2: NINESS K.R.: 'Inulin and Oligofructose: What are They?' THE JOURNAL OF NUTRITION, vol. 129, no. 7 Suppl., July 1999, pages 1402S-1406S, XP002230319
- D3: ROBERFROID M.B., DELZENE N.M.: 'Dietary fructans' ANNUAL REVIEW OF NUTRITION, ANNUAL REVIEWS INC., PALO ALTO, CA, US, vol. 18, 1998, pages 117-143, XP002123057 ISSN: 0199-9885
- D4: BERRY D.: 'Hiding Healthful Ingredients' FOOD PRODUCT DESIGN, [Online] May 2002 (2002-05), XP002230318
- D5: US-A-5 660 872 (BOOTEN KARL ET AL) 26 August 1997
- D6: PATENT ABSTRACTS OF JAPAN vol. 2000, no. 09, 13 October 2000 & JP 2000 157233 A (NARITA TOMOTAKA), 13 June 2000
- D7: US-A-4 978 751 (BITON JACQUES ET AL) 18 December 1990
- D8: US-A-6 004 610 (TROUP JOHN P ET AL) 21 December 1999

2. This application covers 2 distinct inventions. As only the first invention (claims 1-5) has been subject to a search report, this examination report concerns only the aforementioned claims. This invention also seems to represent the main invention, in the sense of Art. 34(3)(c) PCT.
3. This application has been found to have deficiencies that contravene the PCT requirements.
- 3.1. *Shelf-stable* in claim 1 is regarded to be merely a descriptive feature as it cannot have a technical character in the sense used in this application. Moreover, since the term of *shelf-stable* can be used to describe different types of parameters (microbiologic, functional, organoleptic, physico-chemical), the presence of such a feature in the claims can lead to unclarities concerning the scope of the claims.

The same applies to *clear*.

- 3.2. *Substantially* and *about* are vague features that cannot be used to distinguish the alleged invention from the prior art provided the other features are simultaneously present. The affected claims are 1, 4 and 5.

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3.3. Therefore, the claims were analysed with the features mentioned above (§3.1-3.2) being excised from the claims. This removal was made solely for the purpose of examination and not as an amendment or correction (Rule 66.8(a) PCT).

4. Present application does not meet the requirement of Art. 33(1) PCT because the subject-matter of all examined claims is not new in the sense of Art. 33(2) and/or does not involve an inventive step in the sense of Art. 33(3) PCT.

4.1. Document **D1** discloses (the references in parentheses applying to this document) a shelf-stable (see §3.1), essentially tasteless and odourless water-like composition (c. 6 l. 7-31; c. 7 l. 17-33) comprising oligosaccharides in form of starch hydrolysates or oligofructans (c. 5 l. 8-25) and water low in minerals (c. 5 l. 8-25), i.e. containing less than 500 mg/l dissolved salts. Said oligofructans inherited the  $\beta(2-1)$  bonds of inulin and **D2** (p. 1402S) and **D3** (Table 1) confirms the value of DP of inulin and FOS.

**D1**'s composition contains between 0.1 and 10% of said fibres.

There is no reason to believe the prior art composition deviates from a neutral pH (especially when the limits describing such a pH are largely stated in this application).

As a consequence, claims **1-3** do not meet the requirements of Art. 33(2) PCT for lack of novelty in their subject-matter.

5. This application does not meet the requirements of Art. 33(1) PCT because the subject-matter of claims **4** and **5** does not involve an inventive step in the sense of Art. 33(3) PCT.

5.1. **D4** is considered to be the closest prior art document regarding the independent claim **4**. **D4** discloses one potential use of inulin and FOS: taste modifiers (i.e. overall taste improving). **D4** says (chapter **Inulin improves overall taste**) that the short chain fructans interact with the taste buds and this behaviour modifies the taste perception. For this reason, FOS and inulin have been already employed in different beverages (masking off-flavours).

The difference between the disclosure of **D4** and the alleged invention of claim **4** consists in the carrier: neutral pH and demineralised water vs. beverages comprising different other ingredients. Thus, the objective problem to be solved can be formulated as how can one apply the taste modification teachings to a different carrier.

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Such carriers have been already used in **D1** (see **§4.1**) in combination with FOS and/or inulin to produce a water-like composition that shows, implicitly, a slight rise of sweetness. Furthermore, D4 prompts a person skilled in the art to use inulin/FOS in beverages for masking the aftertaste and/or off-flavours (i.e. for modifying the perception of several fundamental tastes).

Such a change comes within the scope of the customary practice followed by the skilled persons, especially as the advantages thus achieved can be readily contemplated in advance.

The same reasoning equally applies for the independent claim **5**.

As consequence, the subject-matter of the independent claims **4** and **5** lacks an inventive step in the sense of Art 33(3) PCT.

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